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A GARCH Model of Inflation and Inflation Uncertainty with Simultaneous Feedback

Stilianos Fountas,^{*(+)} Menelaos Karanasos,^{**} and Marika Karanassou^{***}

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Department of Economics
National University of Ireland, Galway

<http://www.nuigalway.ie/ecn/>

* Department of Economics, National University of Ireland, Galway, Ireland. Tel: +353-91-524411 (ext. 2300), Fax: +353-91-524130, E-mail: steve.fountas@nuigalway.ie

** Department of Economics, University of York, Heslington, York YO10 5DD, UK. Tel: +44-1904-433799, E-mail: mk16@york.ac.uk

*** Department of Economics, Queen Mary & Westfield College, University of London, Mile End road, London, E1 4NS, UK. Tel: +44-020-7885090. E-mail: M.Karanassou@qmw.ac.uk

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Abstract

We examine the relationship between inflation and inflation uncertainty using a GARCH model that allows for simultaneous feedback between the conditional mean and variance of inflation. We also derive a number of theoretical econometric results and illustrate the relevance of these results with an empirical example of the US monthly inflation process. Our results show that there is strong evidence in favour of a positive bi-directional relationship between inflation and inflation uncertainty in agreement with the predictions of economic theory.

Keywords: inflation, inflation uncertainty, GARCH-M

JEL Classification: C2